

REMARKS

The Applicant wishes to thank the Examiner for his examination of the present application. Claims 1-36, 38-69, 76-78, 80, 84, 93-96 and 121-125 are currently pending. No new matter has been added.

35 U.S.C. §112

Claims 1-36, 38-69, 76-78, 80, 84, 93-96, and 123-125 stand rejected under 35 U.S.C. §112 as failing to comply with the enablement requirement. Specifically, the office action states that Applicant fails to disclose in the specification and drawings “at least a portion of each of the first and second surfaces of the implant has a three dimensional shape that substantially conforms with or duplicates the shape of the first articular surfaces”.

During a telephone conversation with the Examiner on November 7, 2008, the Examiner asked where in the drawings the support for the above-described limitation was. The undersigned responded that there is support for the above-described limitation at paragraph [141], but would need further opportunity to review the figures for support (the undersigned did not indicate that there was no support for the above-described limitation in the figures).

Applicant respectfully submits that this element is disclosed in Fig. 8D and the text associated with that figure, as well as the disclosure of Paragraph [0141], which immediately follows the discussion of FIGS. 8-9, and Paragraphs [0018] and [0025]-[0026] of the Summary of the Invention.

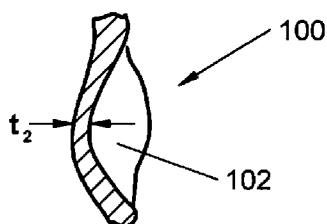


FIG. 8D

Referring first to Fig. 8D, that figure shows a cross section of the implant of Fig. 8B, as depicted along the lines of D-D. T_2 represents the thickness of the implant at the cross-section D-D of Fig. 8B. (See Paragraph [0133].) The drawing illustrates that at t_2 , the first and second surfaces of the implant have the same curvature in the vicinity of t_2 . Paragraph [0131] discloses that the lower surface associated with FIG. 8D matches or nearly matches the tibial plateau (see 104 of Fig. 8A). Thus, the figure illustrates that, at that portion of the implant, the surfaces conform with or duplicate the shape of a first articular surface as claimed.

Additional support is found in Paragraph [0141] of the application, which discloses both inferior and superior surfaces that are based on the same underlying tibial surface. Specifically, that paragraph discloses: “the undersurface of the implant can be designed to match the shape of the tibial plateau including cartilage or bone or both. The superior surface of the implant can be a composite of the articular surface of the tibia (in particular areas that are not covered by menisci) and the meniscus.” The meniscus rests on the top of the tibia, however, due to the crescent shape of the meniscus it does not completely cover the entire tibial plateau. As a result, an implant positioned in the joint between the tibia and the femur would need to allow for this void. As disclosed in that embodiment, a portion of the superior surface of the implant, i.e., the portion overlying the area of the tibia that is not covered by the meniscus, is based on the articular surface of the tibia. As such, the implant disclosed has the claimed structure: first and second surfaces with the first surface opposing a first articular surface and the second surface opposing a second articular surface, wherein at least a portion of the first and second surfaces has a three-dimensional shape that substantially conforms with the shape of the first articular surface.

Finally, the Summary of the Invention section also contains several paragraphs that disclose the claimed structure. Each of these encompasses the claimed structure in which two surfaces of the device each substantially conform to the same articular surface. Specifically, Paragraph 15 states:

The implant has a superior surface and an inferior surface. The superior surface opposes a first articular surface of a joint and the inferior surface opposes a second articular surface of the joint and

further wherein at least one of the superior or inferior surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces. ... The superior surface and the inferior surface of the implant typically have a three dimensional shape that substantially matches the shape of at least one of the articular surface that the superior surface of the implant abuts and the inferior surface of the articular surface that the implant abuts.

Similarly, Paragraph [0025] discloses an “implant having a superior and inferior surface wherein at least one of the superior or inferior surfaces has a three-dimensional shape that substantially matches the shape of an articular surface,” and Paragraph [0026] discloses an “implant having a superior surface and an inferior surface, wherein the superior surface and inferior surface oppose a first and second articular surface of the joint and further wherein at least one of the superior or inferior surfaces substantially matches the three-dimensional shape of the articular surface.”

Accordingly, Applicant respectfully submits that it has complied with the enablement requirement of 35 U.S.C. §112.

Drawings

Claims 1-36, 38-69, 76-78, 80, 84, 93-96 and 123-125 stand objected to under 37 C.F.R. 1.83(a). Specifically, the office action states that the “portion of each of the first and second surfaces of the implant has a three-dimensional shape that substantially conforms with or duplicates the shape of the first articular surface” must be shown. Applicant respectfully submits that this element is disclosed in Fig. 8D.

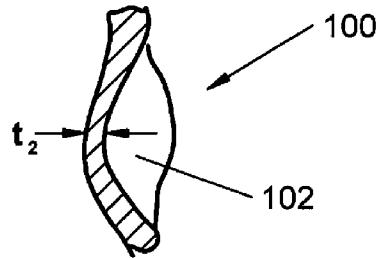


FIG. 8D

As discussed above, Fig. 8D shows a cross section of the implant of Fig. 8B, as depicted along the lines of D-D. T_2 represents the thickness of the implant at the cross-section D-D of Fig. 8B. (See Paragraph [0133].) The drawing illustrates that at t_2 , the first and second surfaces of the implant have the same curvature in the vicinity of t_2 . Paragraph [0131] discloses that the lower surface associated with FIG. 8D matches or nearly matches the tibial plateau (see 104 of Fig. 8A). Thus, the figure illustrates that, at that portion of the implant, the surfaces conform with or duplicate the shape of a first articular surface as claimed. Applicant therefore submits that it has shown every feature of the invention specified in the claims as required by 37 C.F.R. 1.83 (a).

35 U.S.C. §103

Claims 1-36, 38-69, 76-78, 80, 84, 93-96 and 123-125 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. patent no. 6,652,587 (Felt et al., hereinafter Felt) in view of U.S. patent no. 5,522,900 (Hollister). Claim 1 is directed at an articular implant that includes, in part, a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of a joint. At least a portion of each one of the first and second surfaces of the implant has a three-dimensional shape that substantially conforms with or duplicates the shape of the first articular surface.

Felt discloses an implant that has a tibial surface shape designed to be formed to and congruent with the tibial surface, and a generally planar femoral surface shape that is designed to include a glide path with respect to the femoral condyle (see Fell at col. 5, lines -10, and col. 13, lines 23). Nowhere does Felt disclose an implant in which at least a portion of *each* of the first and second surfaces of the implant has a three-dimensional shape that substantially conforms with or duplicates the shape of the first articular surface, as required by claim 1 (emphasis added).

The disclosure of Hollister fails to satisfy the deficiencies of the Felt reference. Hollister discloses a thumb prosthesis that includes two components having surfaces attached to bone, and which have bearing surfaces that mate with each other so as to mimic the natural joint movement (see Hollister at Figs. 5A-6B). Nowhere does Hollister

disclose an implant in which at least a portion of each of the first and second surfaces of the implant has a three-dimensional shape that substantially conforms with or duplicates the shape of the first articular surface, as required by claim 1.

Since neither Felt nor Hollister disclose or suggest an implant in which at least a portion of each one of the first and second surfaces has a three-dimensional shape that either substantially conforms with or duplicates the shape of the first articular surface, as required by claim 1, claim 1 is patentable over the combination of Felt and Hollister.

Claims 2-33 and 42-65 which depend from amended claim 1, are likewise patentable over Felt and Hollister and are further allowable in view of the additional limitations set forth therein.

Independent claim 34 and dependent claims 35, 36, and 38-41; claims 66-69, which depend on claim 1 or 34; independent claim 76 and dependent claims 77 and 78, independent claims 80 and 84; and independent claim 93 and dependent claims 94-96 each reflect (with minor variation) that at least a portion of each of the first and second surfaces of the implant has a three-dimensional shape that substantially conforms with or duplicates the shape of the first articular surface, and thus are allowable for the same reasons as claim 1, and are further allowable in view of the additional limitations set forth therein.

It is submitted that all pending claims are in condition for allowance.
Reconsideration of the claims and a notice of allowance are therefore requested.

Applicants believe that a three month extension of time is required and hereby request that the associated fees be charged to Deposit Account No. 19-4972. Applicants also request that any other fee required for timely consideration of this application be charged to Deposit Account No. 19-4972. Applicants also request that the examiner contact applicant's attorney, Alexander J. Smolenski, Jr., if it will assist in processing this application through issuance.

Appl. No. 10/681,749
Amendment dated May 13, 2008
Reply to office action dated November 13, 2008

The Examiner is requested to telephone the undersigned if any matters remain outstanding so that they may be resolved expeditiously.

Respectfully submitted,

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